UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,431	12/10/2003	Kenji Kurata	492322015100	5131

25227 7590 08/02/2007

MORRISON & FOERSTER LLP
1650 TYSONS BOULEVARD
SUITE 400
MCLEAN, VA 22102

EXAMINER	
CAZAN, LIVIUS RADU	
ART UNIT	PAPER NUMBER
3729	
MAIL DATE	DELIVERY MODE
08/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

HH

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 10/731,431	**Applicant(s)** KURATA ET AL.	
	Examiner Livius R. Cazan	**Art Unit** 3729	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 18 July 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:
   a) ☒ The period for reply expires 4 months from the mailing date of the final rejection.
   b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

   Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   (b) ☐ They raise the issue of new matter (see NOTE below);
   (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:
   Claim(s) allowed: _____.
   Claim(s) objected to: _____.
   Claim(s) rejected: 1,2,4 and 6.
   Claim(s) withdrawn from consideration: 7-9.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

PETER VO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700

Continuation of 11. does NOT place the application in condition for allowance because: Regarding claim 1, Applicant argues (pages 4 and 5) the sensor of Kano does not measure the vertical position of a lower end of the nozzle after the nozzle releases an electronic component and before the nozzle picks up the next electronic component. Applicant further argues that even if the sensor of Kano were continuously outputting data, the sensor cannot measure the position of any involved suction nozzle because the nozzle would be on the opposite side of the rotary table 13.

The examiner respectfully disagrees. Claim 1 is sufficiently broad to allow for the possibility of the sensor measuring the vertical position of the nozzle after having placed a component but before picking up the next component. For example, say a component has just been mounted on a substrate. The nozzle then reaches the pickup station, where it attempts to pick up a component, but either a component is not present or the component falls off the nozzle. When the nozzle reaches the measuring station, the position will be measured, without having picked up the next component. See col. 8, lns. 4-10 of Kano, discussing the possibility of not having picked up a component.

Regarding claim 2, Applicant argues Kano does not disclose a drive source moving the suction nozzle vertically and a control device determining a range of a vertical movement of the suction nozzle based on the vertical position of the lower end of the suction nozzle measured by the position sensor. Rather, Applicant argues, Kano discloses adjusting a nozzle's descending distance based on the detected lower end position of a chip part.

The examiner respectfully disagrees. In the example given above, no component is attached to the nozzle, and therefore the detected lower end will be that of the nozzle, not that of the component. This is similar to Applicant's claim 3 (now canceled), which recited "a decision device judging that the suction nozzle holds the electronic component when the vertical position of the lower end of the suction nozzle measured by the position sensor is lower than a predetermined position." (see Applicant's page 13 and Fig. 9). It is clear that even in Applicant's invention, the sensor measures the vertical position of the lower end of whatever may be attached to the nozzle holder, be it just a nozzle, or a nozzle with a component still attached, yet Applicant refers to this as measuring the position of the lower end of the nozzle, irrespective of the fact that when the nozzle has a component still attached, it is actually the position of the lower end of the component that is being measured. Further, it is deemed that determining a nozzle's descending distance, (i.e. how much it can descend below the current position), constitutes determining the nozzle's range of vertical movement, since the difference between the position of the nozzzle after having descended and the initial position of the nozzle constitutes a range of motion in the vertical direction. Claim 2 does not define what is meant by range of vertical motion, and it certainly does not recite the ability to compensate during mounting for the size of a suction nozzle that has changed due to wear or thermal expansion over time.

As demonstrated above, Kano still discloses the claimed limitations, and the rejection of claims 1 and 6 under 35 U.S.C. 102(b) is maintained.

Regarding claims 1, 4, and 6, Applicant argues Takeuchi and Ito fail to cure the deficiencies of Kano, and, therefore, the examiner has not established a prima facie case of obviousness. As discussed above, Kano does disclose the limitations mentioned by the Applicant, and the rejections of claims 1, 4, and 6 under 35 U.S.C. 103(a) are deemed proper and are maintained.